

Title (en)

QUANTIZED EIGEN BEAMS FOR CONTROLLING ANTENNA ARRAY ELEMENTS IN A WIRELESS NETWORK

Title (de)

QUANTISIERTE EIGENSTRAHLEN ZUR STEUERUNG VON ANTENNENGRUPPENELEMENTEN IN EINEM DRAHTLOSEN NETZWERK

Title (fr)

FAISCEAUX PROPRES QUANTIFIÉS SERVANT À COMMANDER DES ÉLÉMENTS DE RESEAU D'ANTENNES DANS UN RÉSEAU SANS FIL

Publication

**EP 3221982 A1 20170927 (EN)**

Application

**EP 15860088 A 20151113**

Priority

- US 201462083103 P 20141121
- US 201514695800 A 20150424
- US 2015060592 W 20151113

Abstract (en)

[origin: US2016149617A1] A user equipment (UE) may communicate channel state information in a wireless network. The UE may include transceiver circuitry to receive orthogonal frequency division multiple access (OFDMA) signals from an Enhanced node B (eNB). The UE may include processing circuitry to derive one or more principal eigen beams from the received OFDMA signals. The principal eigen beams may have a rank greater than or equal to one. The processing circuitry may derive quantized eigen beams from the principal eigen beams. The processing circuitry may select, in response to the quantized eigen beams, a subset of available antenna ports on the eNB for receiving from the eNB and transmitting to the eNB. The UE may communicate to the eNB a bit pattern of the quantized eigen beams and at least one of a wideband channel quality indicator (CQI) or a subband CQI conditioned on the quantized eigen beams.

IPC 8 full level

**H04B 7/06** (2006.01); **H04B 7/04** (2017.01)

CPC (source: EP US)

**H04B 7/043** (2013.01 - EP US); **H04B 7/0478** (2013.01 - EP US); **H04B 7/0626** (2013.01 - US); **H04B 7/0632** (2013.01 - EP US); **H04L 5/0007** (2013.01 - US); **H04L 5/0025** (2013.01 - EP US); **H04L 5/0048** (2013.01 - US); **H04L 5/005** (2013.01 - EP US); **H04L 5/0057** (2013.01 - EP US)

Designated contracting state (EPC)

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Designated extension state (EPC)

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